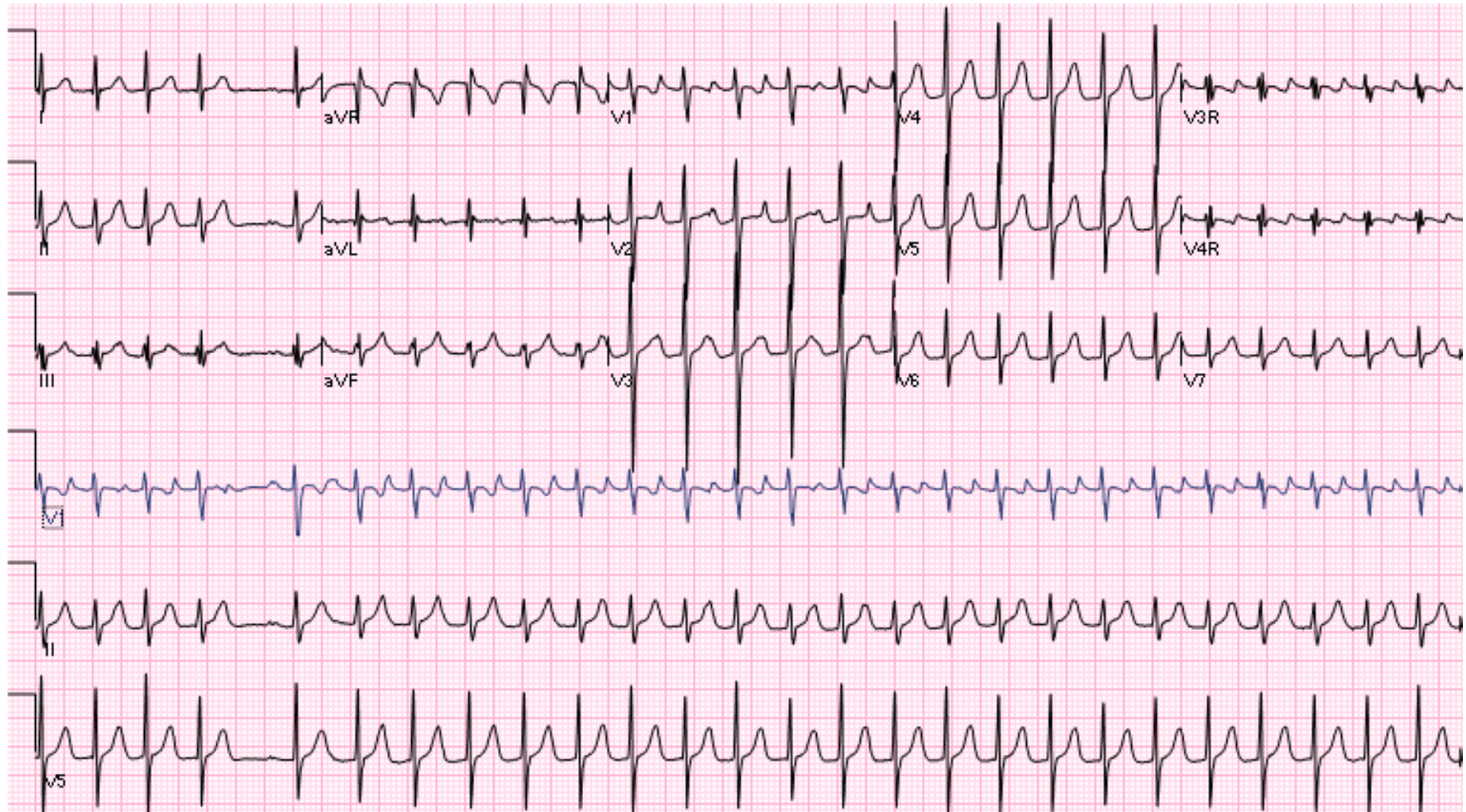


1. What is the rate? Is this sinus tachycardia?
2. Is this a ventricular or supraventricular rhythm? How do you know?
3. If you were to give adenosine, what would happen?



1) What is the rate? Is this sinus tachycardia?

The rate is about 156bpm (26 beats over a 10 second period of time on a standard ECG). This does not appear to be sinus tachycardia, since it is unclear that there's a normal P wave axis. In fact, it's difficult to make out P waves at all!

2) Is this a ventricular or supraventricular rhythm? How do you know?

It is a supraventricular rhythm, meaning the electrical impulse flows from the atria to the ventricles via the AV node. You know this because the QRS complex is narrow, and therefore must use the His-Purkinje system. If it were a ventricular rhythm the QRS complexes would be wide.

### 3. If you were to give adenosine, what would happen?

- Adenosine causes temporary block at the AV node. If the rhythm is an atrial rhythm like ectopic atrial tachycardia (EAT) or atrial flutter, Adenosine will not convert the rhythm but may show the underlying rhythm disturbance. There would be a flatline with p waves/flutter waves (or whatever the underlying rhythm was). If the rhythm was a reentrant rhythm involving the AV node (as is seen in SVT associated with WPW, for example), adenosine should convert that rhythm back to sinus. There would be a flatline, followed by normal sinus beats.